

The invention provides novel solid supports comprising dihydroxyalkyl aminoalkyl and dihydroxyalkylaminobenzyl groups, and methods for making and using them. The supports are particularly useful for immobilizing and derivatizing functionalized boronic acids for use in solid phase synthesis, such as those used in combinatorial chemistries. The compositions and methods of the invention are also useful as scavenger solid supports, e.g., in solution-phase parallel synthesis of small molecule libraries, and for use in resin-to-resin transfer reactions via phase transfer of solid supported boronic acids under both aqueous and anhydrous conditions. The methods of the invention provide convergent solid-phase synthesis of symmetrically or unsymmetrically functionalized compounds, such as biphenyl compounds. Also provided are synthesizer devices, e.g., semiautomated parallel synthesizers.

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